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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,369	03/02/2004	Thomas Hofmann	88265-7010	4272
28765	7590	12/15/2004	EXAMINER	
WINSTON & STRAWN PATENT DEPARTMENT 1400 L STREET, N.W. WASHINGTON, DC 20005-3502			ROBINSON, BINTA M	
			ART UNIT	PAPER NUMBER
			1625	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/792,369

Applicant(s)

HOFMANN ET AL.

Examiner

Binta M Robinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

### Detailed Action

Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 11 already claims that the compound is in its S-isomer form and therefore, the recitation of the compound in the S-isomer form at claim 15 is not further limiting.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. In claim 1, line 6, page 29, and all other occurrences throughout claims 2-18, the phrase "ester derivative" is unclear. What ester derivatives are the applicant claiming? It is not clear what ester derivatives the applicant is claiming since these derivatives are not further delineated in the specification.

B. Claim 6 recites the limitation "X is an amino acid or oligopeptide comprising primary and secondary L-amino acids, and is attached via peptide bonds" in lines 1-3, page 30. There is insufficient antecedent basis for this limitation in the claim. Claim 1 only claims R1= primary amino acids, not secondary amino acids. X in claim 1 is OH or the ionized form of O- not an amino acid or oligopeptide. A peptide bond which is the

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point of attachment for the X moiety in claim 6 is not the same thing as OH or O- as is claimed for X in claim 1.

C. Claim 12, is unclear because it is not clear what the pyridinium-betain compound is being added to, since the claim does not recite the host to which the compound is being added.

D. Claims 13-15 are method claims that are improperly dependent upon a composition claim. Claim 11 is not a method claim, therefore, claims 13-15 are unclear.

E. In claim 16, line 3, and in claim 17-18, the phrase "corresponding amino acids or peptides" is unclear. It is unclear what corresponding amino acids or peptides are being referred to. Are the corresponding amino acids reflected in the R1 group?

F. In claim 17, lines 2-4, the phrase "HMF producing precursors and degradation products thereof with a corresponding amino acids or peptides under conditions sufficient to prepare the Pyridinium-Betain compound" is unclear. It is not clear what compounds are being claimed when HMF producing precursors and degradation products are referred to since precursors and degradation products are not the same chemical species as HMF. Are there other precursors other than B-fructose as described in the specification in example 3, page 8? Also it is unclear as to what conditions are sufficient to prepare the Pyridinium-Betain compound when the precursors and degradation products of HMF are used. The phrase "corresponding amino acids or peptides" is unclear. It is unclear what corresponding amino acids or peptides are being referred to. Are the corresponding amino acids reflected in the R1

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group? In claim 17 and 18, the term "HMF" needs to be spelled out as 5-(hydroxymethyl)-2-furaldehyde.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binta M. Robinson whose telephone number is (571) 272-0692. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562.

A facsimile center has been established. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machine are (703)308-4242, (703)305-3592, and (703)305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1600.



BMR  
December 8, 2004



Cecilia J. Tsang  
Supervisory Patent Examiner  
Technology Center 1600